Comments on the occurrence of core-axe-like artefacts in the northern Cape

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INTRODUCTION

In 1965 Dr. Bruce Relly collected a series of artefacts which he found protruding from the walls of an old diamond prospecting pit near Windsorton. He subsequently passed the artefacts on to Professor R. R. Inskeep of the Department of Archaeology at the University of Cape Town who recognised them as being of considerable interest. When Professor Inskeep left Cape Town he sent the artefacts and Dr. Relly's report to the Alexander McGregor Memorial Museum in Kimberley, this museum being the nearest institution to the site. Following the receipt of the artefacts, the writer visited the site where he was able to confirm the earlier information and collect a few more artefacts.

The purpose of this paper is to describe the artefacts recovered from the prospecting pit. The assemblage consists only of some 37 pieces and so is clearly of no great significance as a sample, but the interest lies in the occurrence in the assemblage of several artefacts which can be classified as core-axes.

LOCATION AND DESCRIPTION OF THE SITE

The artefacts were recovered from the walls of an old diamond prospecting pit. The pit (28° 13,5′S 24° 39,1′E) is located near the Cyrus Mine on the farm number G. W. 10—17, some 15 km north of Windsorton (Fig. 1); the occurrence has therefore been labelled Cyrus I.

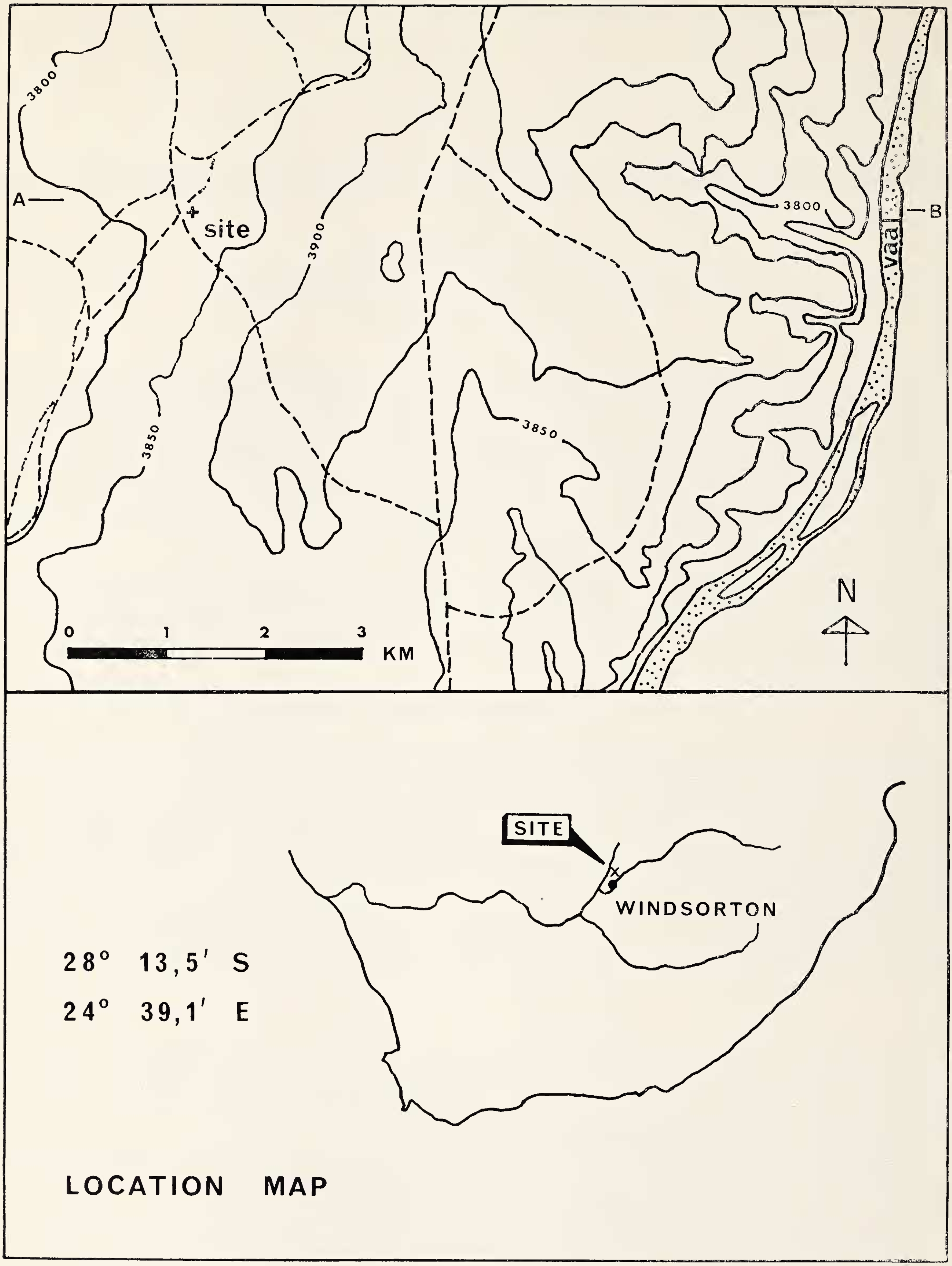
The prospecting pit is about 5 m deep and 20 m in diameter; the artefacts were found eroding out of a level about 3 m below the present land surface. The pit lies near the centre of a shallow, elongated depression that is surrounded to the north, west and east at a distance of about 0,5 km by low, rocky hills of Ventersdorp lava (Fig. 2). As in other areas where the soil is fairly deep and sandy, the vegetation in the depression consists mainly of grass and well-developed thorn trees. Drainage is southward and towards the Harts River.

GEOLOGY OF THE SITE

The deposits in which the artefacts occur are generally poorly consolidated. They are exposed from surface to bedrock and consist of a barren, siliceous layer (Layer "A") at the bottom, resting on weathered bedrock and overlain by two layers (successively Layers "B" and "C") consisting of partly calcified wind-blown sand.

The artefacts were found protruding from the undisturbed walls of the prospecting pit and lying on the floor of the pit where they had fallen as a result of the disintegration and erosion of the enclosing material. Artefacts have been found on all sides of the pit.

The relationship between the artefacts and the deposits in which they occur is shown in Fig. 3.


3800
A
site
3900
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B
Vaal
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SITE
WINDSORTON
28° 13,5′ S
24° 39,1′ E
LOCATION MAP

Figure 1

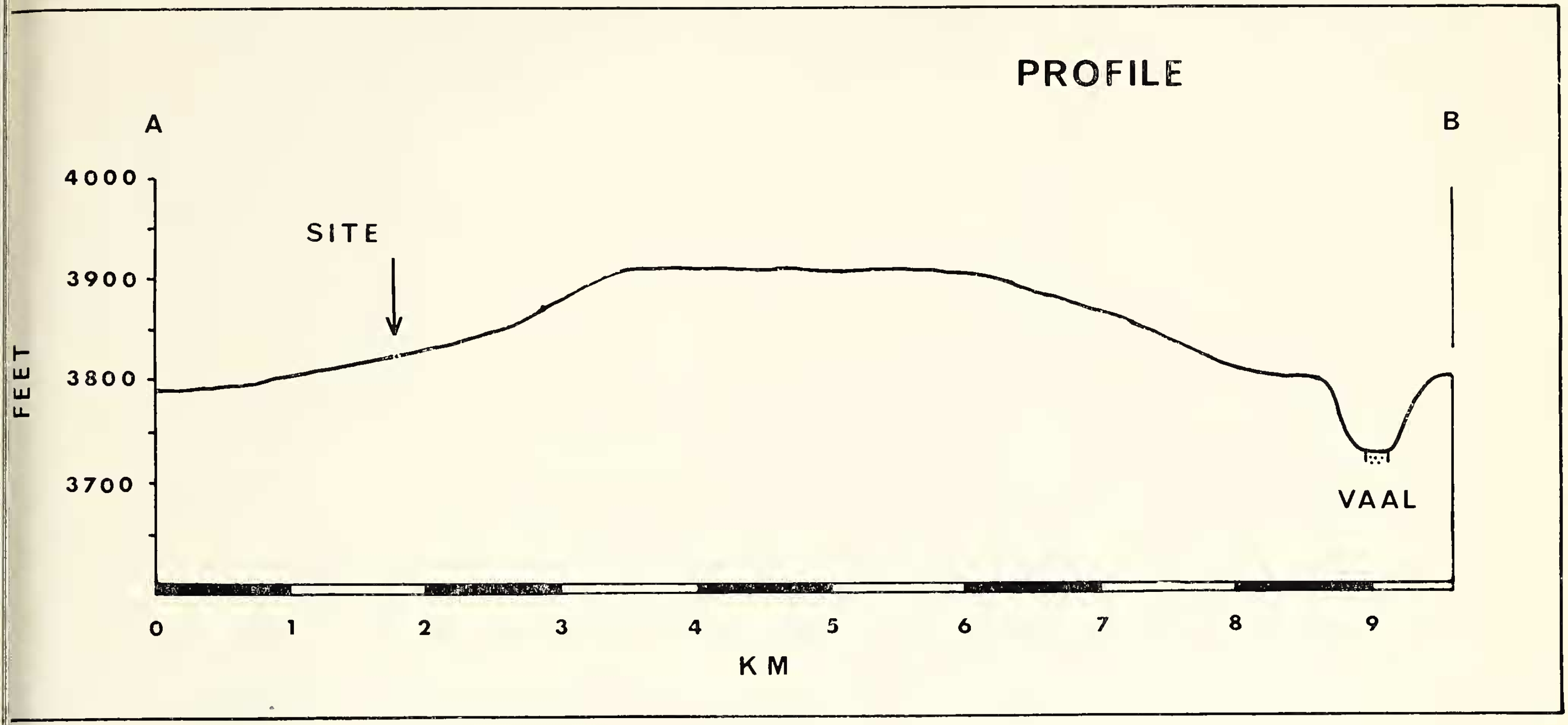

Figure 2

Layer "A"

This white siliceous layer rests on a surface of soft weathered bedrock. It is 1,0—1,25 m thick and consists of quartz grains cemented by an abundance of soft, light-weight, porous, quartzitic material of uncertain origin. The lower part of the layer contains a number of angular rock fragments, mainly of lava, up to 0,5 m in size.

There is no evidence of water action and no artefacts have so far been found in this layer.

Layer "B"

Layer "B" is 1,25—1,75 m thick and consists essentially of red, wind-blown sand that has been calcified to various degrees so that in parts it may fairly be called calcrete (surface limestone). Its contact with Layer "A" is especially marked where the artefacts are abundant as these occur mainly at the bottom of Layer "B".

Due to irregular calcification the colour of Layer "B" varies from dark red to orange or pink or white and in places it has a mottled or speckled appearance. Calcification is generally more complete towards the top of the layer where the calcrete has a hard, platey habit.

The artefacts occur in the lower 0,6 m of this layer, but are more plentiful at the contact with Layer "A". The lower part of Layer "B" is also distinctive for the small, black nodules, probably manganiferous, that it contains.

Layer "C"

This layer can be subdivided into two parts. The lower part is 0,3—0,5 m thick and consists of pale red to grey or white slightly calcified sand with white calcareous nodules averaging about 0,7 cm in size. The upper part, which forms the surface layer of soil, consists of uncalcified, loose, red sand 0,6—1,2 m thick. The contact between these two parts is generally gradational and irregular. The lower part of Layer "C" is generally less consolidated than Layer "B".

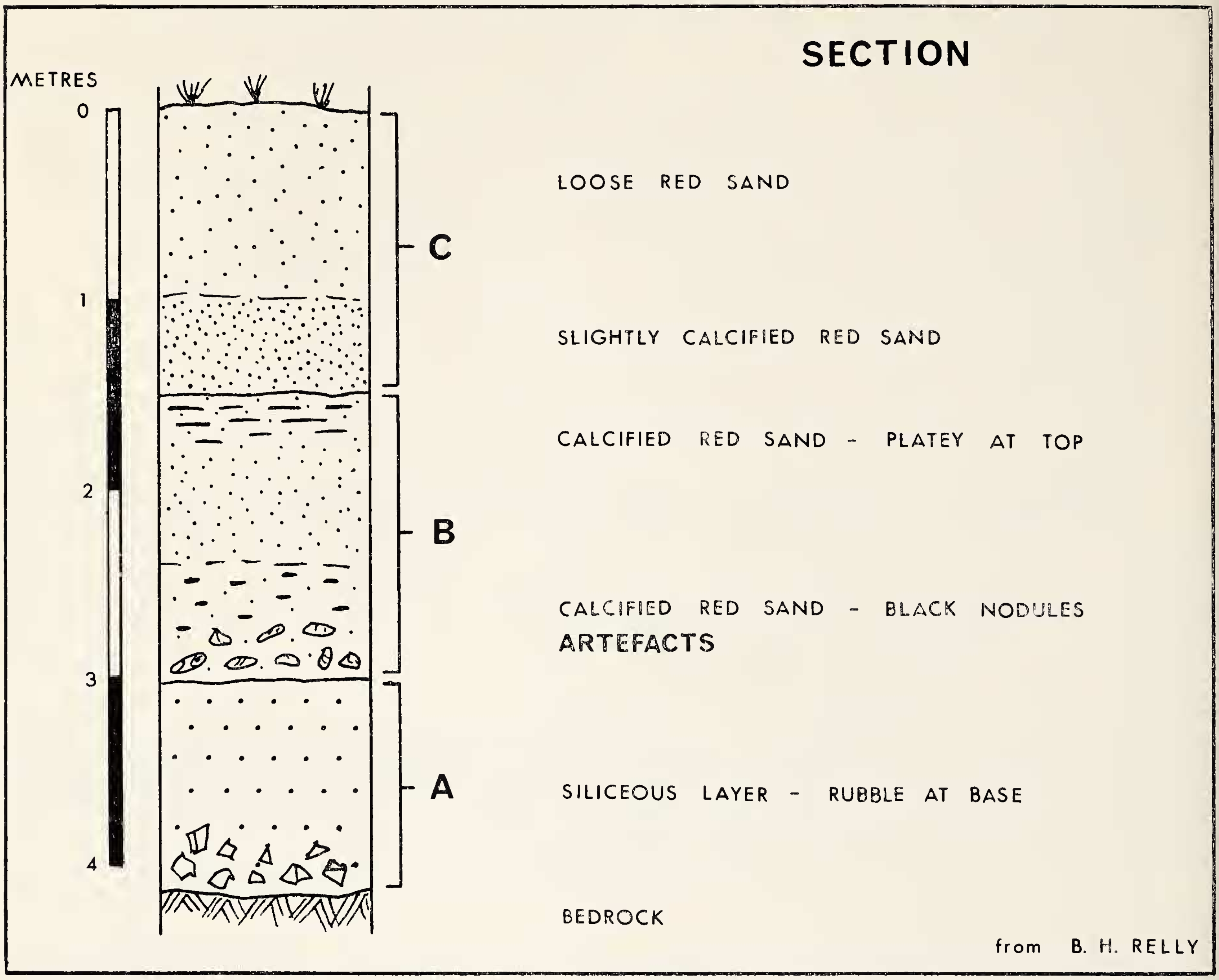

Figure 3

CULTURAL MATERIAL

The artefact types represented in the assemblage are listed, with their frequencies, in Table 1. The terms used follow current general usage or are self-explanatory; the definition of "core-axe" is as given by Clark (1963: 50).

TABLE I

LIST OF ARTEFACT TYPES

Core-axes	6
Handaxes	3
Cleavers	1
Lanceolate biface	1
Core-choppers	3
Core scrapers	2

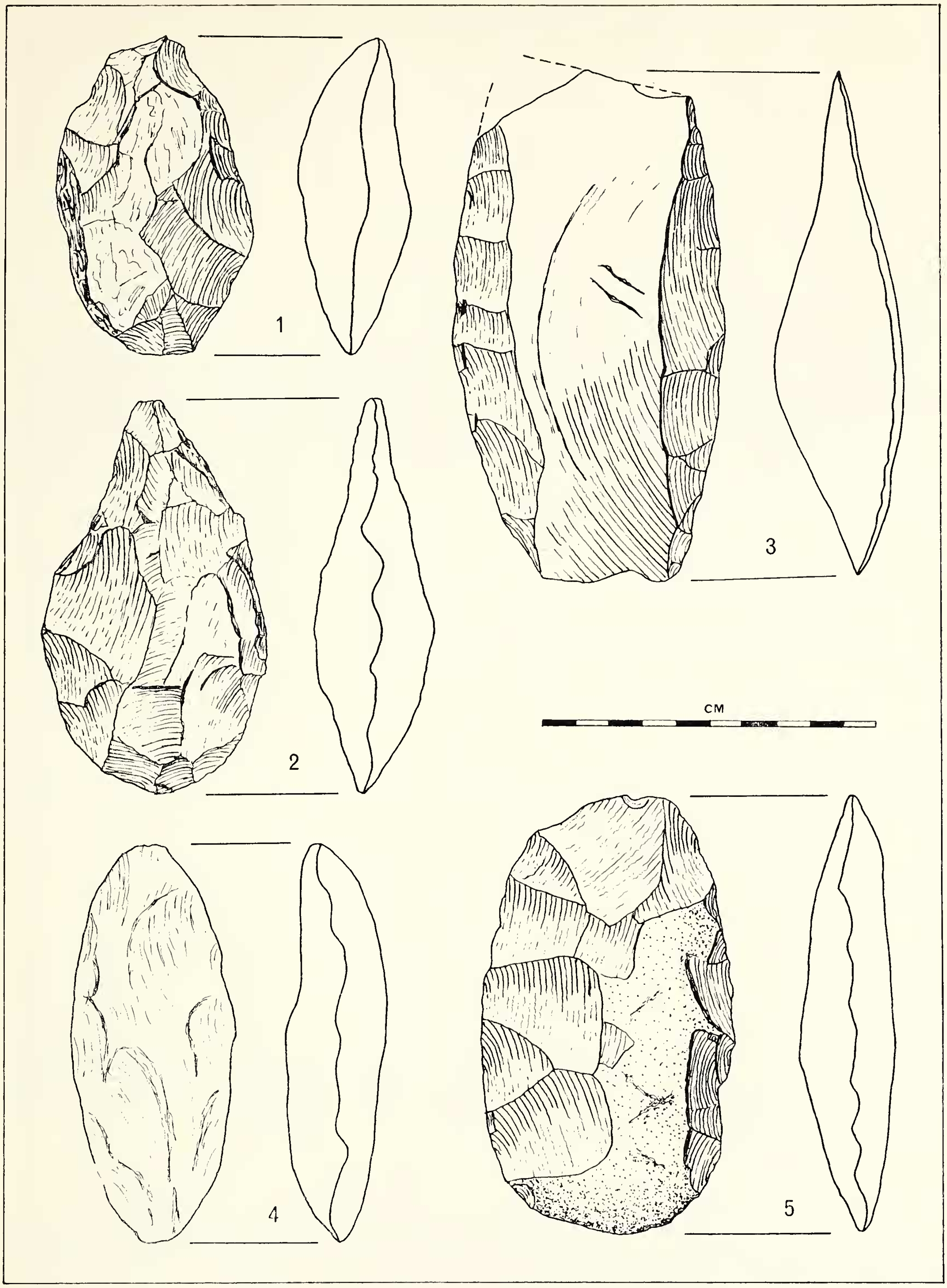

Figure 4 1 and 2: Handaxes. 3: Cleaver. 4: Lanceolate biface. 5: Core-axe.

Bifacial tools	3
Discoids	1
Scrapers	2
Bifacial fragments	3
Flakes	9
Cores	3
	37

Core-axes (6) (Fig. 4: 5; Fig. 5: 1—4; Fig. 6: 1)

Of the six core-axes, one can be classed as "divergent edged" (Fig. 5: 2) while the rest are "convergent edged". The divergent core-axe has been worked unifacially while the others are all bifacial. The convergent bifacial core-axes all have distinct chisel shaped working edges carefully prepared by bifacial flaking; these working edges are slightly curved when viewed end on. Five of the core-axes are fresh; the sixth is slightly rolled. All the core-axes are made from quartzite.

The dimensions are as follows (in mm):

	L.	B.	Th	
Divergent	120	63	34	(flake)
Convergent	141	63	33	(core)
	128	73	29	(flake)
	112	53	34	(flake)
	113	58	28	(flake)
	124	80	33	(flake)

Handaxes (3) (Fig. 4: 1 and 2)

Three handaxes were recovered: two fresh and one heavily rolled. All are made from quartzite.

The dimensions are as follows (in mm):

L.	B.	Th
116	67	33
98	58	29
94	58	32

Cleavers (1) (Fig. 4: 3)

One diabase cleaver was recovered in the assemblage. It is in a fresh condition but the cleaver edge is slightly damaged; this damage appears to be recent and so a dotted line has been added to the Fig. to show the probable original outline of the implement. The cleaver was made on a thick side-struck flake. The dimensions are 153 × 81 × 38 mm.

Lanceolate Biface (1) (Fig. 4: 4)

One very rolled lanceolate-shaped bifacially worked artefact was recovered. Details of the flaking are largely obscured by the rolling, but it appears to have been relatively crudely made. The biface is made from quartzite and measures 118 × 48 × 29 mm.

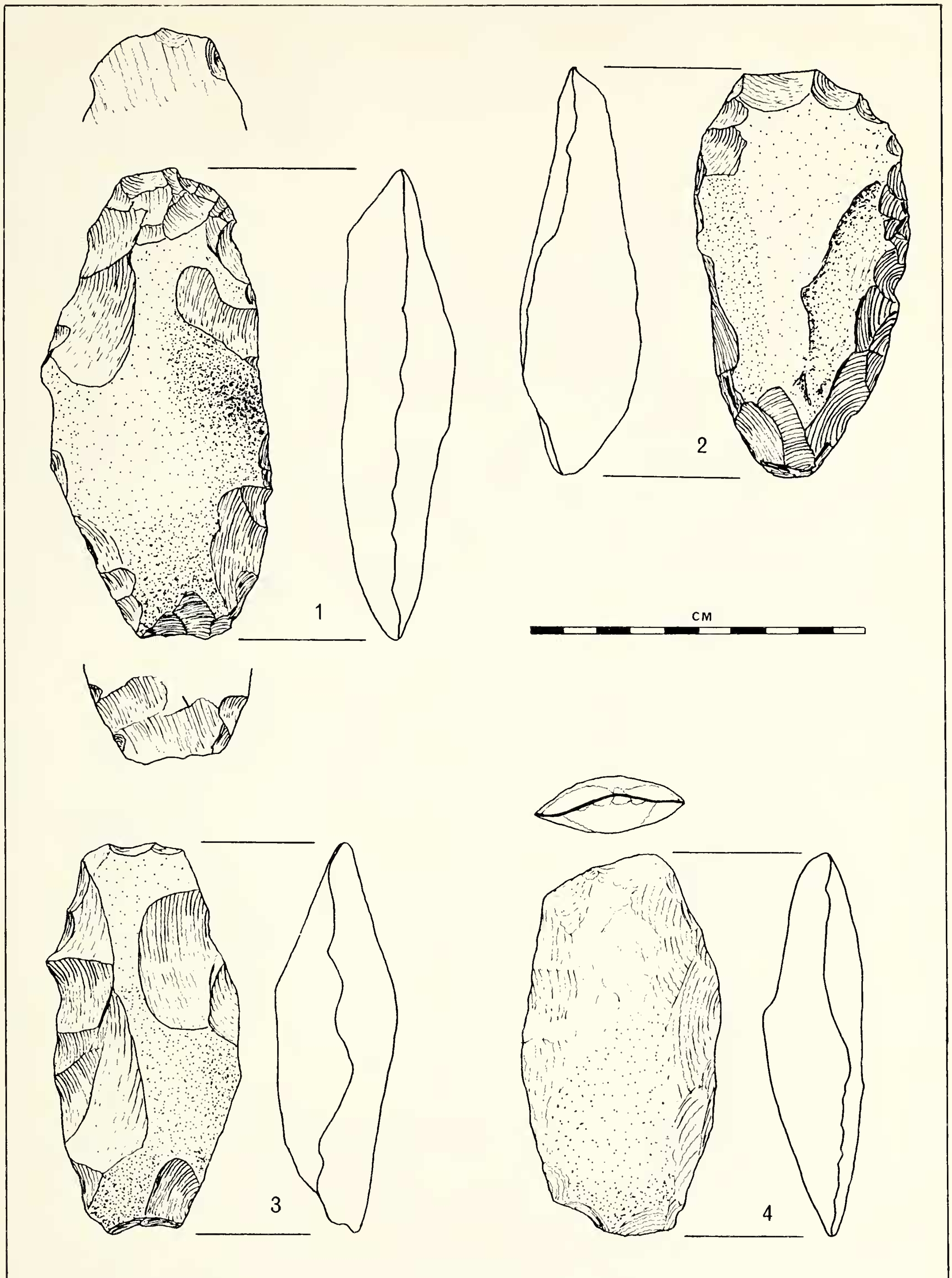

Figure 5 1—4: Core-axes.

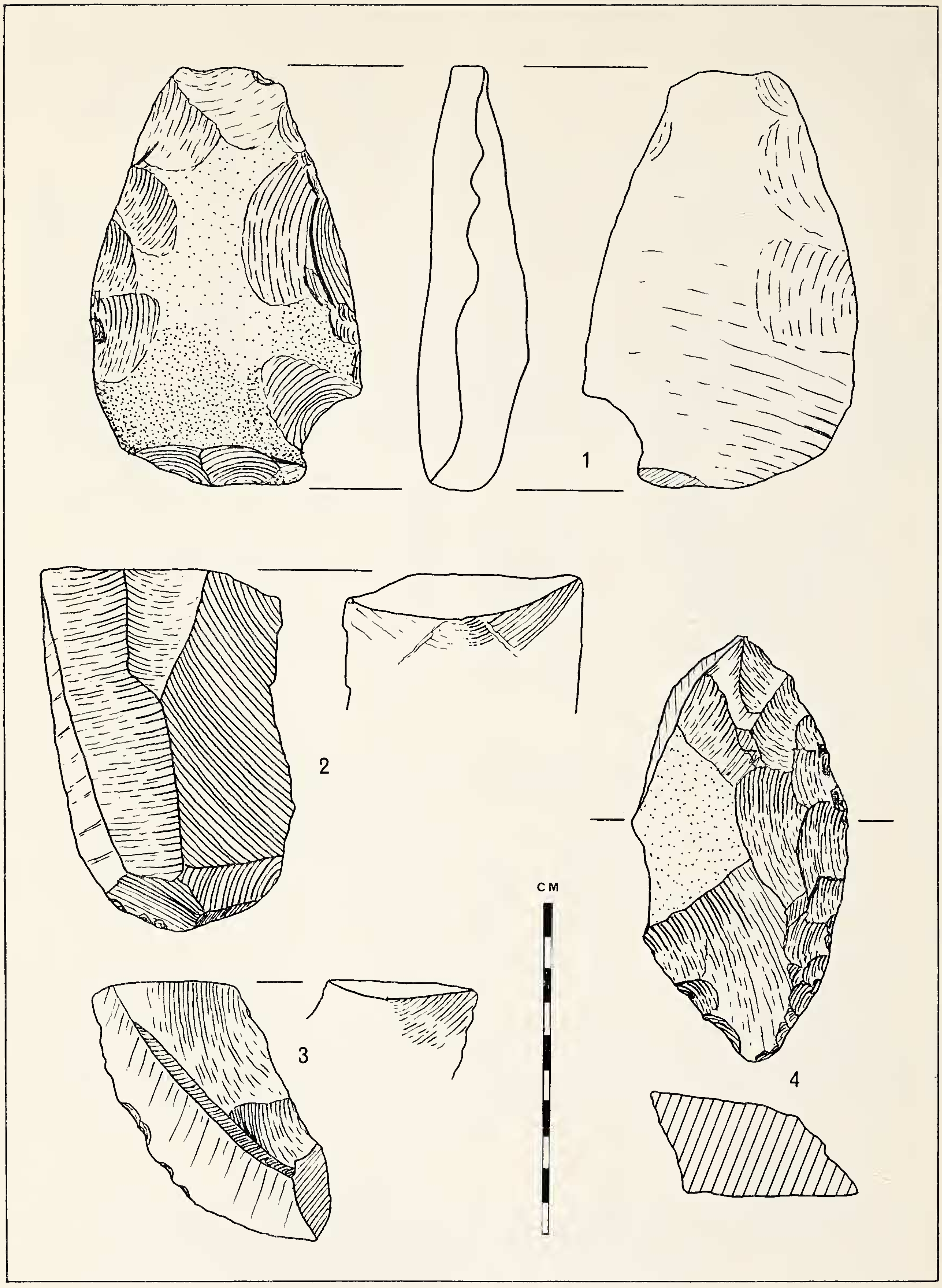

Figure 6 1: Core-axe. 2 and 3: Flakes. 4: Scraper.

Core-choppers (3) (Fig. 7: 3 and 4)

The core-choppers are core tools with a few flakes removed bifacially so as to produce a zig-zag "chopping" edge. The edge opposite to the chopping edge is flat and can comfortably be held in the hand. The core-choppers are made from quartzite and their lengths taken at right angles to the chopping edges are 91, 75 and 71 mm.

Core scrapers (2)

These consist of thick cores with one edge showing steep scraper retouch; they are made from quartzite.

The dimensions are as follows (in mm):

L.	B.	Th
91	62	41
91	66	36

Bifacial tools (3) (Fig. 7: 2)

Three artefacts showing bifacial working were recovered. Two of these are so heavily weathered that details of flaking cannot easily be distinguished. The third artefact is fresh and shows crude flaking along one edge from one surface and a few flakes along the edges of the other surface; it has a hand-axe-like shape, but no effort seems to have been made to produce a pointed end. All three are made from quartzite.

The dimensions are as follows (in mm):

L.	B.	Th
138	70	30
115	67	30
114	56	20

Discoids (1)

One bifacially worked discoid was recovered; it is made from quartzite and is 96 mm in length.

Scrapers (2) (Fig. 6: 4)

Two scrapers made on side-struck flakes were recovered; they have convex scraping edges opposite to the flat butt of the flake on which they were made. One is made from diabase while the other is from quartzite. The lengths are 131 and 125 mm.

Bifacial fragments (3)

These are bifacially worked artefacts representing broken implements—two are possibly portions of handaxes. One is made from diabase and the other two from quartzite.

Flakes (9) (Fig. 6: 2 and 3)

A total of nine quartzite flakes was collected. All but three are heavily rolled. Striking platforms can be distinguished on six of the flakes and all are plain. The flakes range in length from 47 to 94 mm.

Cores (3) (Fig. 7: 1)

One diabase and two quartzite cores were recovered. Two of the cores can be classed as disc cores while the third is a single platform core.

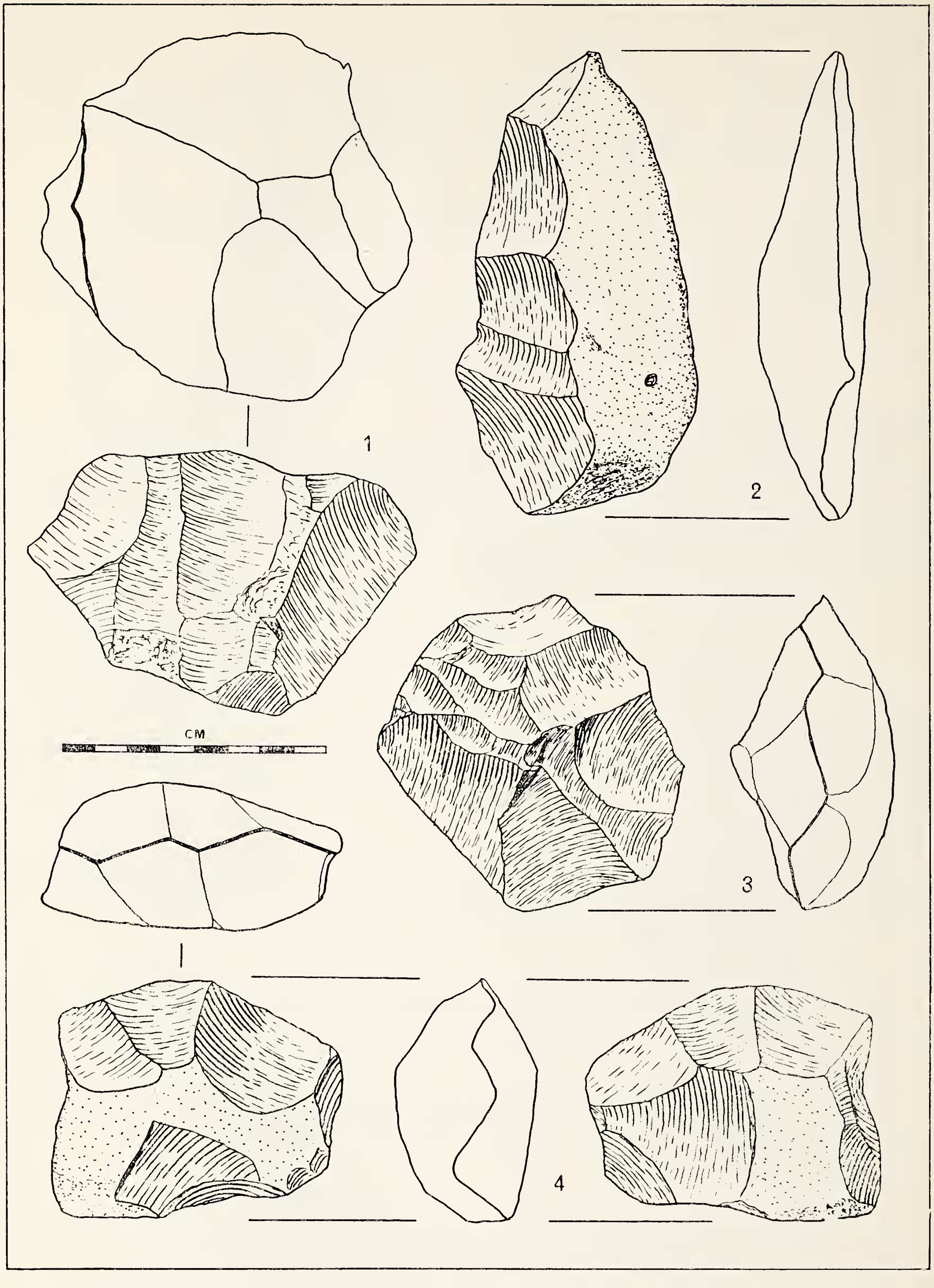

Figure 7 1: Core. 2: Bifacial Tool. 3 and 4: Core Choppers.

DISCUSSION

The assemblage described above is small and is composed of artefacts selected from the exposed walls of a diamond prospecting pit. The assemblage is therefore of no significance as a representative archaeological sample. However, as mentioned earlier, the assemblage is of interest because it includes several artefacts which can be classified as core-axes, and it is for this reason that it has been described here. Apart from the added interest of the core-axes, there is no doubt that Cyrus I is a site with considerable potential in the study of the archaeology and palaeo-ecology of the "Early Stone Age" in the interior of South Africa, and it is therefore worth placing its existence on record.

J. D. Clark (1963: 50) seems to have introduced the term "core-axe" to Southern Africa. In his definition of core-axe, Clark put forward the suggestion that these artefacts were associated with woodworking. The occurrence of core-axes in the Sangoan and Lupemban Industrial Complexes and their apparent distribution in the forest and woodland areas of equatorial and south Central Africa seemed to support this interpretation of the function of these artefacts. Environmental change at Kalambo Falls and the related cultural change from Acheulean to Sangoan provided further support for the interpretation of core-axes as woodworking tools (Clark 1964).

In 1967, however, MacCalman and Viereck (1967) reported a site with core-axes and lanceolate points from the middle of South West Africa. They described the site as being of Lupemban affinities possibly related to the Angolan sites some 1 600 km to the north; they suggested that their site might represent "an isolated outlier of the Angolan Lupemban".

The discovery of core-axes in the Northern Cape is not quite so easy to explain. Whatever climatic conditions might have been prevailing when the Cyrus I artefacts were made the environment would hardly have been comparable with that in the Sangoan-Lupemban areas to the north. Even during "wet" conditions where there might have been 150% of the present rainfall the area would only have supported temperate mixed grassland, according to Cooke (1964). Although Cyrus I is at present an isolated occurrence, it is clear that it will necessitate some rethinking on the identification and definition of core-axes and the interpretation of their possible function. It seems that the correlation between core-axes and particular industries and environments will have to be reviewed in the light of Cyrus I and even of the Peperkorrel site in South West Africa.

ACKNOWLEDGEMENTS

Thanks are due to Ray Inskeep of the University of Oxford for sending the assemblage to the Alexander McGregor Memorial Museum, and to Dr. Bruce Relly who discovered the artefacts and who also provided notes on the geology of the site from which some of the information contained in this paper was drawn.

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